

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**Docket Number (Optional)  
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2836Examiner  
Ann Thi HoangCustomer Number:  
25453

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

Yes

This request is being filed with a notice of appeal.

Yes

The review is requested for the reason(s) stated on the attach sheet(s).

Note: No more than five (5) pages may be provided.

Yes

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Date

☒ Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

The various claims have been rejected under 35 USC 102 or 35 USC 103 in view of Wright. The following discussion will center on claim 1, as the other independent claim, claim 16, is directed to the power supply of claim 1 in a printing context.

The invention relates to a power supply having two output terminals, each terminal having a different output voltage. In some contexts, one or the other terminal will experience a temporary heavy current draw, such as to warm up a copier. The overall point is to permit the heavy current draw from one output terminal without adversely affecting the other output terminal.

Claim 1 as currently pending reads as follows (emphases added):

1. A power supply accepting a mains voltage as an input and outputting a first predetermined voltage from a **first terminal** and a second predetermined voltage from a **second terminal**, comprising:

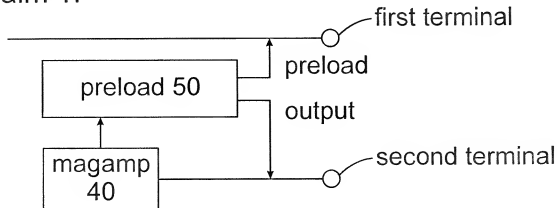
a main circuit for deriving the first predetermined voltage from the mains voltage;

a secondary circuit for deriving the second predetermined voltage from the main circuit, the secondary circuit including a post regulator circuit including a **magamp controller**; and

a **preload circuit applying a preload on the main circuit** as a result of the secondary circuit going out of control, the **preload circuit including an output directly to the second terminal and an input from the magamp controller**.

Below is a diagram of the elements recited in claim 1; this is a simplified version of Figure 2 as filed and as described in the Specification at page 4, lines 24-27. The preload circuit receives an **input** from the magamp controller, and, as claimed, outputs to **both** the first and second terminal.

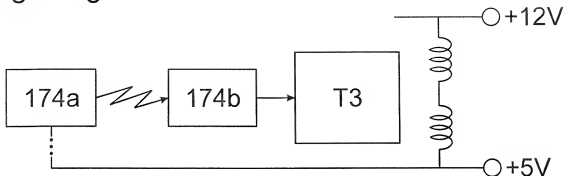
### Claim 1:



The rejection states the Figure 3 embodiment of Wright distinguishes itself from the magamp-based controller shown in Figure 1B of Wright; but the use of a magamp controller, as in the claimed invention, would have been obvious based on the disclosure of the magamp controller 40 in Figure 1B of Wright.

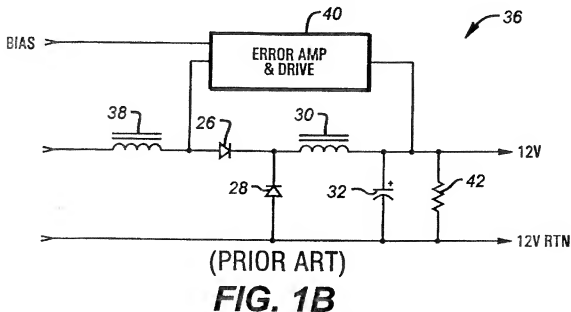
With regard to the Figure 3 embodiment of Wright, the embodiment describes a "coupled-inductor topology" which is utterly different from the claimed invention. The passage in Wright cited in the rejection, column 9, lines 22-67, describes a system in which the +5V output terminal is controlled via a loop, through resistor 172 and optocouplers 174a, 174b, to the *input* side of a transformer T3, as shown in this simplified version of Wright Fig. 3.

Wright Fig. 3:



With a coupled-inductor topology, because the two outputs share the same transformer output coil, there can be no true independence between the outputs of the main and secondary terminals: each output voltage changes when the load on the other output changes. This disclosure is simply unrelated to a *magamp* control of the *secondary circuit*, and a person of skill in the art would see no teaching relevant to the claimed invention.

Figure 1B of Wright describes a magamp control 40, but the magamp control is simply used as a direct feedback loop involving the *main circuit only*.



While Figure 1B of Wright shows generally that a magamp controller is one type of approach for controlling a two-output power supply, the feedback loop of Figure 1B of Wright simply shows magamp control of *one* output; while claim 1 recites an effective magamp control of *both* outputs.

In the most recent response, the Examiner states that Wright discusses, such as at 3:10-34, that magamp controllers are generally known to be useful in the power-supply context, and it is therefore immaterial whether the magamp is used to control a "main" or "secondary" circuit. However, in the claimed invention, a magamp circuit is used to control a preload circuit that affects **both** of the outputs. Fig. 1B shows magamp control of only one output; Fig. 3 shows a completely different topography, i.e., a common transformer coil, to influence two outputs. More to the point, Wright posits Fig. 3 as something different from, and better than, the magamp control of Fig 1B (see 3:30-34). By presenting the Fig. 3 shared-coil embodiment as superior to the magamp arrangement of Fig 1B, Wright indeed teaches away from the use of a magamp for controlling *both* outputs.

In the most recent response (last sentence), the Examiner seems to disagree that claim 1 recites that the preload circuit affects **both** the first terminal and the second terminal. However, the last clause of claim 1 indicates this is what is being claimed: "a preload circuit **applying a preload on the main circuit** as a result of the secondary circuit going out of control, the preload circuit including an **output directly to the second terminal** and an input from the magamp controller." As can be seen, the main circuit and the second terminal (part of the secondary circuit) both receive an output from the preload circuit. Once again, this condition of using a magamp in control of *both* outputs is not disclosed or suggested by Wright.

Finally, neither Fig 1B nor Fig. 3 of Wright remotely suggest an explicitly recited principle of claim 1: "applying a preload on the main circuit **as a result of** the secondary circuit going out of control [as detected by the recited magamp

controller].” The idea of applying a preload to one output makes no sense in the context of Wright Fig. 3, as Fig. 3 relies on the two outputs sharing a transformer coil. The Fig. 1B embodiment, because it is directed to control of only one output, cannot suggest using a detected condition of one output to influence the *other* output, as recited. The two teachings cannot be combined to show the recited aspect as obvious.

**In summary:**

**Claimed invention:** preload circuit influences main circuit in response to secondary circuit going out of control, and also outputs to second terminal

**Wright Fig. 3:** two outputs share a transformer coil; recited preload circuit makes no sense in this context

**Wright Fig. 1B:** generally discusses use of magamp control, but no suggestion that control of one output influences the *other* output, as recited

For these reasons, claim 1 and its dependent claims 7-11 are therefore deemed allowable.

Claims 16-20 have been rejected over Wright in view of Chapman; Chapman shows the use of a power supply in a printer. Claim 16, from which claims 17-20 are dependent, includes the limitations of claim 1, and is therefore deemed allowable, along with its dependent claims.